I-35 PLANNING & ENVIRONMENTAL LINKAGE STUDIES
AAMPO – Transportation Policy Board
June 22, 2015
Rider 42

- $300M four most congested regions
- Texas Transportation Institute (TTI)
  - Facilitator and project coordinator
    - Determine projects with greatest impact on congestion
    - Funding options
    - Best traffic and demand management
    - Open and transparent public involvement
    - Make recommendations
- Mobility Investment Priorities Project
What is a Planning and Environmental Linkages Study?
A Planning and Environmental Linkages (PEL) study occurs early in the transportation project development process.

A PEL study helps identify travelers’ current and future needs and travel patterns and can also identify potential projects to carry forward for further review, and possible funding for construction.
I-35 Bypass PEL Study

Study Area: includes portions of Bexar and Guadalupe Counties in and around San Antonio, Texas.

The purpose of the I-35 Bypass PEL study is to identify transportation improvement strategies on other facilities to provide an alternate or bypass to I-35 in San Antonio.

The purpose of the proposed action should serve the needs by:

- Increasing mobility
- Improving safety
- Improving system management and operations
- Improving accommodations and connections (with other existing and planned transportation modes)
- Protect and enhance the environment by improving existing facilities to become more efficient within existing ROW as practical.
TEXAS DEPARTMENT OF TRANSPORTATION

PRESENT POTENTIAL PROJECT ALTERNATIVES FOR FORMAL ENVIRONMENTAL STUDY

NEXT STEPS

- Finalizing base and future traffic operations reports.
- Consider public and stakeholder input.
- Write and finalize PEL Study Report.

COMPLETED TASKS

- Collected study data.
- Engaged stakeholders and the public through:
  - three rounds of public workshops,
  - TxDOT and Federal Highway Administration (FHWA) conference,
  - PEL Study kickoff workshop,
  - Seguin Area Stakeholders Workshop,
  - community focus group meeting,
  - Two rounds of Study Advisory Committee meetings,
  - City of San Antonio stakeholder workshop, and
  - FHWA updates.

COMPLETED TASKS (cont.)

- Identified conceptual strategies to consider as potential project solutions.
- Created draft alternatives based on conceptual strategies.
- Modeled travel demand.
- Identified potential environmental impacts.
- Used screening and evaluation of draft alternatives to identify preliminary project recommendations for further study.
What are the potential Environmental Impacts?

- Karst Invertebrate Habitat Zones 1 Thru 4
- Edwards Aquifer Recharge Zone
- T&E Habitat (Does Not Include Karst Invertebrate Habitat)
- 100-Year Floodplains
- Streams, Creeks, and Rivers
- National Wetland Inventory Wetlands
- Ponds/Lakes
- Cultural Resources (Historic and Archeological)
- Schools, Faith-Based Organizations, Cemeteries and Other Public Facilities
- Parks, Recreational, Refuges and other 4(F) Properties
- Potential Commercial/Non-Commercial Displacements
- Potential Residential Displacements
- Minority, Low Income, or Limited English Proficiency Block Group
- Agricultural (Farmland/Rangeland)
- Military
- Quarries
- Railroad Right-of-Way
- Undeveloped Land

Does the strategy have the potential to reduce congestion on I-35 through downtown or the study area?

- Reduction in Number of Vehicles on I-35
- Reduction in Number of Vehicle Hours Traveled
- Reduction of Vehicle Miles Traveled
- AM/PM Peak Speed

Does the strategy facilitate potential for regional economic development?

- Reduce Travel Time to Enhance Market Area
- New or Enhanced Accessibility to Non-Built Out Areas
- Enhance Compatibility with San Antonio and Regional Development Initiatives
- Reduce Impacts to Established Businesses

Does the strategy have potential to reduce crashes on I-35 through downtown or the study area?

- Reduce Accident Potential by Improving Operations
- Enhance Driver Expectancy (Signing, Striping, Route Continuity, Etc.)
- Reduce Public Safety Delays (Police, Fire, EMS)
## Strategy Scenarios Overview

A combination of scenarios were identified and evaluated. These include:

<table>
<thead>
<tr>
<th>Complimentary &amp; Operational Scenarios</th>
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<tr>
<td>Scenario 0 – Current Plan</td>
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<tr>
<td>Scenario 1 – Travel Options</td>
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<td>Scenario 2 – Arterials</td>
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<td>Scenario 3 – Interchanges</td>
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<td>Scenario 4 – Access Upgrades</td>
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<td>Scenario 5 – Strategic Scenario</td>
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<tr>
<th>Added Capacity Scenarios</th>
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<tbody>
<tr>
<td>Scenario 6 – I-410 East &amp; I-10 East</td>
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<tr>
<td>Scenario 6B – I-10, I-37, &amp; I-410</td>
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<tr>
<td>Scenario 7 – I-410 West</td>
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<tr>
<td>Scenario 8 – Loop 1604 East</td>
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<tr>
<td>Scenario 9 – Loop 1604 West</td>
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<td>Scenario 10 – Comprehensive Scenario</td>
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Reduction in Number of Vehicles on I-35

Measures based off the 2035 Travel Demand Model
Potential 2033 Bypass Traffic Market

Enticing Traffic from Red to Blue
Based on Data Collection and 2033 Projections
Potential 2033 Bypass Traffic Market

Enticing Traffic from Red to Blue
Based on Data Collection and 2033 Projections

10.4% 10,300 AADT
9.3% 9,200 AADT

2033 198,550 AADT
Potential 2033 Bypass Traffic Market

Enticing Traffic from Red to Blue
Based on Data Collection and 2033 Projections
Potential 2033 Bypass Traffic Market

Enticing Traffic from Red to Blue
Based on Data Collection and 2033 Projections
**Conclusions**

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<th>All of the strategies are associated with some improvement on I-35 in the San Antonio area.</th>
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<td>TDM results indicate only minor improvement for each individual strategy.</td>
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<td>San Antonio appears to be the destination for a majority of the I-35 corridor trips in the area based off the TDM.</td>
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<td>Results from the TDM suggest that a bypass improvement to the south and east would have a higher potential to benefit mobility on I-35 with less potential environmental impacts than improvements to the north and west.</td>
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<td>Bluetooth data indicates there is potential that the benefit to mobility on I-35 would be higher than modelled.</td>
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<td>Short-term (&quot;low-hanging fruit&quot;) recommendations include implementation of ITS solutions and operational improvements.</td>
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Visualization samples shown at Public Workshop #3
I-35 CENTRAL PEL STUDY

Alamo Area MPO
Policy Board Meeting
June 22, 2015
THE PEL PROCESS

The goal of a PEL is to create a seamless decision-making process that minimizes duplication of effort, promotes environmental stewardship, and reduces delay from planning through project implementation.

2013
- JUNE: The study kicks off with a workshop.
- JULY/AUGUST: An agency coordination committee meeting is held. The first Public Open House occurs.
- OCTOBER: A Project Advisory Committee Meeting is held.
- NOVEMBER: An Affected Environment Technical Memo is drafted and a second Public Open House is held.

The PEL generally occurs early in the planning process when decision-makers consider environmental, community, and economic goals.

September: Alternatives Evaluation Criteria are developed.

April: A technical memo describing Need and Purpose is completed.

January: Previous project history is reviewed and considered for the planning process.

2014

2015
- MARCH: Public Open House #3.
- JULY: Final PEL Document is completed.

These goals are carried through project development and environmental review (NEPA), and ultimately through design, construction, and maintenance.
I-35 Central PEL – Need for Mobility Solutions

- I-35 through San Antonio ranked among top 50 most congested corridors.
  - Complex geometry near downtown
  - I-35 serves as a major trade route where freight traffic mixes with commuter traffic
- According to AAMPO, by 2040, there will be over 1.5 million more people in the MPO Study Area.

If nothing is done, peak periods become longer and complete gridlock will result in 2040...
I-35 Central PEL – Study Area

- One-mile buffer around the downtown core comprises 11,000 acres of downtown San Antonio
- Buffer allows for collection of manageable quantities of regionally representative data
I-35 Central PEL – Screening and Alternatives Evaluation

- **Initial Screening**
  - Identify concepts that have the potential to meet Need and Purpose
    - Broad Pass/Fail Analysis

- **Secondary Screening** - Alternatives Evaluation Criteria
  - Qualitative/Quantitative Analysis
Conceptual Strategies

**Complementary**
These alternatives generally require less capital investment.

- Intelligent Transportation Systems
- Traffic Demand Management
- Transportation System Management
- Alternate Route Signage

**Operational**
These alternatives have fewer impacts to existing infrastructure and allow for improved traffic flow and general system operations.

- Exit and Entrance Ramp Modifications
- Surface Street Improvements
- Geometric Improvements
- Freeway Improvements

**Added Capacity**
These alternatives provide more travel lanes on an existing corridor.

- Widen existing I-35
- Direct Connect Ramp Improvements
- Mainlane Realignment
- Elevated Managed Lanes
I-35 Central PEL – Complementary Strategies

Alternate Route Travel Time Signage

Two route choices

Driver can make better informed route decision

Advance Signing + Real Time Information
I-35 Central PEL – Complementary Strategies

Intelligent Transportation Systems

Real time data can be used to push traffic information.

Travel Demand Management + Transportation System Management
I-35 Central PEL – Operational Strategies
Freeway Improvements

Separate I-10 traffic from I-35 traffic.
I-35 Central PEL – Added Capacity
Elevated Managed Lanes
I-35 Central PEL – Recommendations

No single strategy solves the Study’s need and purpose. A “Program of Projects (PoP)” phased in over time will provide benefits.

The PoP range from short-term, low-cost options to longer-range, capital intensive options.

An improved transportation system requires advancing and implementing Complementary, Operational, and Added Capacity strategies.